Remarks

The present amendment and request for reconsideration is filed in response to the Office

action mailed February 15, 2007. Claims 1-14 and 20-33 are pending in the application.

In the Office Action, the Examiner pointed to a number of claim deficiencies that could

cause antecedent problems. Applicants have amended the claims to clarify the subject matter

regarded as the applicants' invention. No new matter is added by the amendments. It is

therefore requested that the Examiner withdraw any objections to the claims.

Claims 1-4, 8-11 and 20-22 were rejected under 35 U.S.C. § 102(e) as being anticipated

by U.S. Patent No. 6,415,421 B2 to Anderson et al. The Examiner points to column 2, lines 2-4,

as evidence that Optical and Process Correction (OPC) can correct for image distortions, optical

proximity effects, photoresist kinetic effects, etch loading distortions, and other process effects.

The Examiner then points to other locations in the Anderson et al. patent that describe other

aspects of the claim. However, applicants respectfully submit that the Examiner has not pointed

to any teaching or suggestion in the Anderson patent that indicates that the results of an etch

simulation are used to produce an etch-compensated set of mask/reticle data and performing

optical and process correction (OPC) to produce a set of OPC-corrected mask/reticle data that

compensate for optical/resist process distortions using the etch-compensated set of mask/reticle

data as an input as set forth in Claim 1.

Because at least these aspects of Claims 1, 8, 20 and 23 are not taught or suggested by the

Anderson et al. patent, it is submitted that the reference does not anticipate the claims.

Therefore, these claims and the claims that depend thereon are allowable.

Claims 5-7, 12-14 and 23-25 were rejected under 35 U.S.C. § 103(a) as being obvious

over Anderson et al. in view of Tejnil, U.S. Patent Application No. 2002/0086218. The

Examiner states that the Anderson et al. patent does not disclose biasing but argues that paragraph 28 of the Tejnil teaches biasing. Paragraph 28 of the Tejnil application indicates that the overlap of features in a phase-shift mask (PSM) and a binary mask should be designed to accommodate any misalignment of the two masks, any distortion from thermal cycling and any process bias from the lithography, thin film and etch process. However, applicants respectfully submit that the Examiner has not pointed to anything in the Tejnil application that teaches or suggests calculating etch biases and applying the previously calculated etch biases within a model-based optical process correction (OPC) loop as set forth in Claims 5, 12, and 23. Because neither the Anderson et al. nor the Tejnil reference cited by the Examiner teaches at least this feature, it is submitted that the rejection of Claims 5-7, 12-14 and 23-25 and the claims that depend thereon is improper.
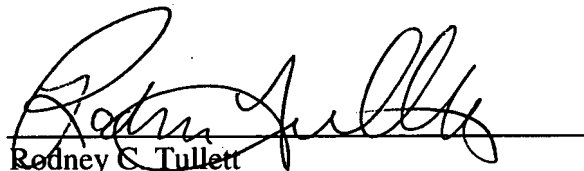
In light of the above, it is submitted that all the pending claims are in condition for allowance. If the Examiner has any additional questions regarding the application, he is invited to call applicants' attorney at the number listed below.

Respectfully submitted,

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